

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027040**Date Inspected:** 13-Jan-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** L & M Industrial Fabricators**Location:** Tangent, Oregon**CWI Name:** Tom Dreyer**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Head Parapet Wall**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived at L & M Industrial Fabricators between the times noted above to randomly observe Quality Control (QC) personnel monitor the welding operations performed by L & M personnel on the fabrication of parapet walls to the Tower Heads. The following observations for the extra work being performed to the following contract change order were:

CCO: 196 - Description: Construct parapet walls at the Tower Heads.

**South Tower Head Parapet Wall:**

This QA Inspector randomly observed L & M welder Corey Hoyer (Welder ID #6) performing the root, fill, and cover pass weld operation on a partial-joint-penetration (PJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet wall base plate - A4a to top plate surface of the South Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature for 1" thick material of 50 degrees F was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-B-PS-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode. The WPS-D1.5-FC-B-PS-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 was submitted to the Engineer for approval but has yet to be approved.

This QA Inspector generated an Incident Report on January 12th 2012 for the contractor proceeding with the welding operation without prior approval of the WQCP and/or addendum's by the Engineer in writing.

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## WELDING INSPECTION REPORT

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This QA Inspector randomly observed L & M welder Otis Smith (Welder ID #19) performing the root, fill, and cover pass weld operation on a partial-joint-penetration (PJP) groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (3G) vertical position connecting the parapet wall base plate- A8a to top plate surface of the South Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root pass weld operation that the minimum preheat temperature for 1" thick material of 50 degrees F was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-B-PS-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode. The WPS-D1.5-FC-B-PS-GF was submitted as an addendum to their WQCP Submittal 2510, Rev. 2 was submitted to the Engineer for approval but has yet to be approved.

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### Summary of Conversations:

Only general conversations between the QC Inspector and QA.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Peterson, Art	Quality Assurance Inspector
<b>Reviewed By:</b>	Levell, Bill	QA Reviewer

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